

***What is Claimed Is:***

1. A self inflating pneumatic seat cushion apparatus comprising:
  - a pumping chamber having an air inlet and at least one outlet tube, said pumping chamber being filled with resilient foam; and
  - 5 at least one cushion bladder in operative communication with said pumping chamber via said at least one outlet tube, said cushion bladder being filled with resilient foam and said cushion bladder having an exhaust valve, said exhaust valve having an adjustable pressure release whereby a user may selectively control pressure in said pumping chamber and said at least one cushion bladder.
- 10 2. The apparatus of claim 1 further comprising a check valve in said at least one outlet tube.
3. The apparatus of claim 1 further comprising a check valve in said air inlet.
4. The apparatus of claim 1 wherein said cushion bladder does not contain foam.
5. The apparatus of claim 1 wherein said pumping chamber does not contain foam.
- 15 6. The apparatus of claim 1 wherein said cushion bladder has a dump valve.
7. The apparatus of claim 3 wherein said valve is time controlled.
8. The apparatus of claim 7 wherein said inlet valve is time controlled by at least one perforation in a flow control plate.
9. The apparatus of claim 2 wherein said check valve is time controlled.
- 20 10. The apparatus of claim 8 wherein said time control of said check valve is by at least one perforation in a flow control plate.
11. The apparatus of claim 1 wherein said cushion bladder is on a seat bottom.
12. The apparatus of claim 1 further comprising at least one bolster.
13. The apparatus of claim 12 wherein said at least one bolster contains foam.

14. The apparatus of claim 1 wherein said pumping chamber is adjacent to said cushion bladder.

15. The apparatus of claim 1 wherein said pumping chamber is at least partially within said cushion bladder.

5        16. The apparatus of claim 1 wherein said selfinflating pneumatic seat cushion apparatus is installed in a folding seat.

17. The apparatus of claim 1 wherein at least one of said cushion bladder or said pumping chamber is made from a material selected from the group consisting of urethane and a nylon/urethane blend.

10        18. The apparatus of claim 1 wherein at least one of said foam in said pumping chamber or said foam in said cushion bladder has a density of substantially about 110/1 8ILD.

19. The apparatus of claim 2 wherein said check valve is preconfigured to open at a pressure that is greater than atmospheric pressure.

15        20. The apparatus of claim 2 wherein said check valve is preconfigured to close at a pressure of about 0.5 PSIG.

21. The apparatus of claim 3 wherein said check valve is preconfigured to open at a pressure greater than atmospheric pressure.

22. The apparatus of claim 3 wherein said check valve is preconfigured to close at a pressure substantially about 0.5 PSIG.

20        23. The apparatus of claim 1 wherein said foam in at least one of said pumping chamber or said cushion bladder has air chambers.

24. The apparatus of claim 6 wherein said dump valve is adjustable and wherein said dump valve has an adjuster accessible by a user for controlling the overall rigidity of the cushion bladder system.

25. A method of assembling an inflatable seat cushion system for a folding seat comprising:

connecting a pumping chamber with a cushion bladder such that air may flow from said pumping chamber into said cushion bladder;

5 allowing air flow into said pumping chamber via an inlet, said inlet having a check valve;

operatively connecting a dump valve to said cushion bladder such that said cushion bladder may be deflated to a volume allowing storage of said system;

10 sealing within at least one of said pumping chamber or said cushion bladder a volume of foam sufficient to expand said pumping chamber or said cushion bladder upon opening of the folding seat; and

disposing said pumping chamber such that movement of an occupant of the seat having said system installed therein causes airflow into said pumping chamber and airflow out from said pumping chamber to said cushion bladder.

15 26. The method of claim 25 further comprising:

fitting said dump valve with an adjuster such that a user can selectively control a pressure level within said cushion system.